

## ABSTRACT

Calculation models (22, 24) for an in-cylinder air charge amount determine an estimated intake air pressure ( $P_e$ ) based on an intake air flow rate ( $M_s$ ), and then determine an air charge amount ( $M_c$ ) from the estimated intake air pressure ( $P_e$ ). A correction execution module (26) corrects, while a vehicle is traveling, the calculation model based on the relationship between the estimated intake air pressure ( $P_e$ ) and a measured intake air pressure ( $P_s$ ).